

## **THE CONTROLLER/PILOT SEPARATION RESPONSIBILITY ISSUE**

The responsibility for the safe operation of an aircraft is a shared task. It involves pilots, air traffic controllers, mechanics, dispatchers, technicians, and many other individuals. It falls to each person to insure that his or her responsibilities are fulfilled and that all the pieces come together at the appropriate times to insure that the highest levels of safety are maintained.

As with all complex issues involving aviation safety, the responsibilities and duties of one group can be interlaced with those of another. Normally this interaction provides another level of safety and redundancy, allowing one group to provide quality assurance to the work of another group, and vice versa. When the aircraft is in flight, many of the duties of pilots and air traffic controllers compliment one another. However, there is a distinct line that can be drawn as to the legal and statutory duties of each group as it pertains to the separation of aircraft.

Air Traffic Controllers (ATC) have the legal responsibility to separate aircraft from one another within the IFR system. They accomplish this by issuing control instructions to aircraft that provide for positive separation. The safety aspect of air traffic control is embedded in this separation responsibility. If proper separation is maintained, then the controller's primary responsibility is fulfilled. While there are as many different techniques for controlling air traffic as there are air traffic controllers, the standards applied are fairly consistent throughout the world. There are clearly defined rules which spell out exactly how close, in either time or distance, two aircraft can pass within a given environment. The controller must analyze the entire traffic picture, insuring that his or her control instructions to one aircraft will not jeopardize separation with another aircraft or obstruction. Controllers must also insure that their clearances contribute to the orderly and expeditious flow of traffic in their airspace. This means applying separation in such a way that delays are distributed equitably, and that the airspace under their control is managed in such a way as to provide the best possible service to all system users. Because the controller is the only person who has the total "picture" of what is going on in their airspace, only they are in a position to apply separation between all aircraft under their control.

The pilot in command is the final and ultimate authority as to the safe operation of an aircraft. If the pilot feels that an air traffic control clearance will compromise the safety of their aircraft, they can refuse to accept it. Additionally, a pilot can take any action they deem necessary, including deviating from an ATC clearance, to insure safety. Unlike a controller, the pilot has no set distance that they must maintain from another aircraft, other than to avoid a collision. Under normal circumstances, however, the pilot must operate his or her aircraft within the boundaries of their ATC clearance in respect to

altitude, heading, route, airspeed, and other aspects of flight. While a pilot has some latitude as to how slowly or quickly they may comply with a clearance, they do not have the authority to modify the boundaries of that clearance without concurrence from the controller. Even when a pilot is maintaining visual separation from another aircraft, they are merely implementing a control instruction where the separation standard is, essentially, *don't hit the other aircraft*. If for some reason a pilot cannot continue to operate under a specific set of control instructions (a pilot with a clearance to maintain visual separation enters the clouds and no longer has the other aircraft in sight), it is the controller's responsibility to implement another course of action to provide for positive separation.

In essence, pilots insure safety by exercising their authority as to the way that they operate their aircraft. A controller insures safety by issuing control instructions that provide for separation between aircraft, between aircraft and terrain, and between aircraft and restricted airspace and obstructions. These two different ways of achieving the same goal, a safe and efficient flight, compliment and enhance one another.